



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0269; Project Identifier MCAI-2020-01417-T; Amendment 39-21682; AD 2021-16-19]

RIN 2120-AA64

Airworthiness Directives; Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. This AD was prompted by reports of in-flight engine shutdowns (IFESs); investigation results indicated that this could be caused by high altitude climbs at higher thrust settings on engines with certain thrust ratings. This AD requires amending the existing airplane flight manual (AFM) to incorporate a new limitation and revise certain normal procedures, as specified in a Transport Canada Civil Aviation (TCCA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For TCCA material incorporated by reference (IBR) in this AD, contact the TCCA, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, CANADA; telephone 888-663-3639; email AD-CN@tc.gc.ca; Internet <https://tc.canada.ca/en/aviation>. For Airbus material incorporated by reference in this AD, contact Airbus Canada Limited Partnership, 13100 Henri-Fabre Boulevard, Mirabel, Québec J7N 3C6, Canada; telephone 450-476-7676; email a220_crc@abc.airbus; Internet <https://a220world.airbus.com>. You may view this IBR material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0269.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0269; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

TCCA, which is the aviation authority for Canada, has issued TCCA AD CF-2020-41, issued October 15, 2020 (TCCA AD CF-2020-41) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. The NPRM published in the *Federal Register* on April 16, 2021 (86 FR 20097). The NPRM was prompted by reports of IFESs; investigations are ongoing to determine the root cause. Investigation results indicated that an IFES could be caused by high altitude climbs at higher thrust settings on engines with certain thrust ratings. The NPRM proposed to require amending the existing AFM to incorporate a new limitation and revise certain normal procedures, as specified in TCCA AD CF-2020-41.

The FAA is issuing this AD to provide the flightcrew with information and procedures for operation above 29,000 feet to prevent uncontained failure of an engine during an IFES, which could result in structural damage and reduced structural integrity of the airplane. See the MCAI for additional background information.

Comments

The FAA received comments from Air Line Pilots Association, International (ALPA), who supported the NPRM without change.

The FAA received additional comments from one commenter. The following presents the comment received on the NPRM and the FAA's response.

Request to Amend the Existing Airplane Flight Manual

Delta Air Lines Inc. (Delta) asked that the proposed AD also require amending the AFM with Supplement 21 at Issue 016 for Model A220-300 (BD-500-1A11)

airplanes. Delta stated that the proposed AD requires amending the AFM with Supplement 21 for only Model A220-100 (BD-500-1A10) airplanes, and should include amending the AFM for both models.

The FAA agrees with the commenter's request. Paragraph (h)(2) of the proposed AD incorrectly identified only the A220-100 AFM. The FAA intended to require the AFM revision based on the applicable AFM for both Model BD-500-1A10 and BD-500-1A11 airplanes, including both the A220-100 and A220-300 AFMs. The FAA has added the AFM amendment for Model A220-300 (Model BD-500-1A11) airplanes to paragraph (h)(2) of this AD.

Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the change described previously and minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

The FAA also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

Related Service Information Under 1 CFR Part 51

TCCA AD CF-2020-41 specifies procedures for amending the applicable AFM to incorporate a new limitation and revise the normal procedures to limit the engine N1 setting for flights above 29,000 feet.

Airbus Canada Limited Partnership has issued Supplement 21 – Operation Above 29000 Feet, of Airbus A220-100 Airplane Flight Manual, Publication

BD500-3AB48-22200-00, and Airbus A220-300 Airplane Flight Manual Publication BD500-3AB48-32200-00, both Issue 016, dated October 16, 2020. These supplements specify limitations, information, and procedures for operation above 29,000 feet. These documents are distinct since they apply to different airplane models.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Interim Action

The FAA considers this AD interim action. If final action is later identified, the FAA might consider further rulemaking then.

Costs of Compliance

The FAA estimates that this AD affects 42 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
1 work-hour X \$85 per hour = \$85	\$0	\$85	\$3,570

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-16-19 Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.): Amendment 39-21682; Docket No. FAA-2021-0269; Project Identifier MCAI-2020-01417-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus Canada Limited Partnership (type certificate previously held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.) Model BD-500-1A10 and BD-500-1A11 airplanes, certificated in any category, as identified in Transport Canada Civil Aviation (TCCA) AD CF-2020-41, issued October 15, 2020 (TCCA AD CF-2020-41).

(d) Subject

Air Transport Association (ATA) of America Code 72, Engines.

(e) Reason

This AD was prompted by reports of in-flight engine shutdowns (IFESs); investigation results indicated that this could be caused by high altitude climbs at higher thrust settings on engines with certain thrust ratings. The FAA is issuing this AD to provide the flightcrew with information and procedures for operation above 29,000 feet to prevent uncontained failure of an engine during an IFES, which could result in structural damage and reduced structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, paragraph A., of TCCA AD CF-2020-41.

(h) Exceptions to TCCA AD CF-2020-41

(1) Where TCCA AD CF-2020-41 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where paragraph A. of TCCA AD CF-2020-41 requires amending the existing airplane flight manual (AFM) by “incorporating the SUPPLEMENT 21 Operation above 29000 feet from AFM Revision 15-A dated 10 September 2020,” this AD requires amending the existing AFM by incorporating Supplement 21 – Operation Above 29000 Feet, of Airbus A220-100 Airplane Flight Manual, Publication BD500-3AB48-22200-00, and Airbus A220-300 Airplane Flight Manual Publication BD500-3AB48-32200-00, both Issue 016, dated October 16, 2020.

(3) Where paragraph A. of TCCA AD CF-2020-41 specifies to “[i]nform all flight crews of the new supplement and thereafter operate the aeroplane accordingly,” this AD does not require those actions as those actions are already required by existing FAA operating regulations.

(4) Where paragraphs B. and C. of TCCA AD CF-2020-41 specify procedures for a borescope inspection for signs of damage of the 1st stage axial low-pressure compressor (LPC) rotor of each engine, to be performed after the AFM N1 limitation has been exceeded, this AD does not require that action.

(5) Where paragraph C. of TCCA AD CF-2020-41 describes an optional installation of health management unit reports to monitor N1 exceedances, this AD does not include that option.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or TCCA; or Airbus Canada Limited Partnership's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Related Information

For more information about this AD, contact Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Supplement 21 – Operation Above 29000 Feet, of Airbus A220-100 Airplane Flight Manual, Publication BD500-3AB48-22200-00, Issue 016, dated October 16, 2020.

(ii) Supplement 21 – Operation Above 29000 Feet, of Airbus A220-300 Airplane Flight Manual Publication BD500-3AB48-32200-00, Issue 016, dated October 16, 2020.

(iii) Transport Canada Civil Aviation (TCCA) AD CF-2020-41, issued October 15, 2020.

(3) For TCCA AD CF-2020-41, contact TCCA, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, CANADA; telephone 888-663-3639; email AD-CN@tc.gc.ca; Internet <https://tc.canada.ca/en/aviation>.

(4) For Airbus service information identified in this AD, contact Airbus Canada Limited Partnership, 13100 Henri-Fabre Boulevard, Mirabel, Québec J7N 3C6, Canada; telephone 450-476-7676; email a220_crc@abc.airbus; Internet <https://a220world.airbus.com>.

(5) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0269.

(6) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on July 30, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

Note: This document was received for publication by the Office of the Federal Register on December 14, 2021.

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